

REMARKS

Claims 1-10 are currently pending. Reconsideration of this application is respectfully requested in view of the remarks below.

Rejection under 35 USC § 112 (second paragraph)

The Examiner rejected claims 4 and 9 as being indefinite for reciting the term "white liquor waste." More specifically, the Examiner states this term "is uncertain as to meaning and scope." See the Office Action, page 2, lines 16-21. Applicants respectfully disagree.

The Specification points out that a white liquor waste, e.g., sorghum liquor waste, is a crop liquor waste. See page 1, lines 13-14. In any event, one of ordinary skill in the art would know that "white liquor waste" is a term originating from China used to describe the remains of solid state fermentation of grain for obtaining liquor. More specifically, white liquor recovered by distillation from solid state fermentation of grain such as sorghum or corn and the term "white liquor waste" refers to the remains after distillation.

The term "white liquor waste" can be found in many publications, e.g., 蔡哲和，固體酒糟再利用之研究。製酒科技專論彙編 1996 (第18期) 305-310. Applicants attach hereto as "Exhibit A" a copy of pages 305-306 from the above publication in Chinese, along with an English translation of the boxed passage and table 2. The passage mentions the term and the table lists nutrients found in a white liquor waste.

Accordingly, Applicants submit that the term "white liquor waste" is not indefinite and respectfully request withdrawal of the rejection.

Rejection under 35 USC § 102(b) and § 102(a)

The Examiner rejected claims 1, 3-6, and 8-10 as being anticipated by Chen et al., *Biotechnology Letters* **2001**, 23, 331-333 ("Chen"). Specifically, the Examiner states that since Chen appears to have been published prior to March 1, 2001 (i.e., published more than a year before this application was filed), it is a prior art reference under 35 USC § 102(b). He also asserts that even if Chen was not published prior to that date, it is citable under 35 USC § 102(a)

since the reference is a publication by others, evidenced by inventor Tsung Yin Tang not being listed as an author. See the Office Action, page 3, lines 6-21. Applicants respectfully disagree.

To establish the publication date of Chen, Applicants point to the web page of ingenta connect, an online provider of this reference:

<http://www.ingentaconnect.com/content/klu/bile/2001/00000023/00000005/00323464>. This web page indicates that the Chen reference was published in March 2001. Applicants attach a copy of the web page hereto as "Exhibit B." Chen clearly is not a prior art reference under 35 USC § 102(b).

Neither is Chen a prior art reference under 35 USC § 102(a), as the inventorship of rejected claims 1, 3-6, and 8-10 is identical to the authorship of Chen. Applicants would like to point out that Tsung-Yin Tang's inventive contribution to the subject matter claimed in this application was directed to a dry form of a composition. Note that a dry form of the composition is not specifically covered by the rejected claims. Neither is it disclosed in Chen, Tang was therefore not included as an author in Chen. In other words, the inventive entity of the rejected claims and the authorship of Chen are the same. Chen therefore is not citable against the claims at issue under 35 USC § 102(a).

In view of the above, Applicants submit that claims 1, 3-6, and 8-10 are not anticipated by Chen and respectfully request withdrawal of the rejection.

Rejection under 35 USC § 103(a)

The Examiner rejected claims 2 and 7 as obvious over Chen in view of Cory, U.S. Patent No. 4,077,842 ("Cory"). Specifically, the Examiner states that it would have been obvious to dry the mixture of phytase and sorghum waste liquor disclosed by Chen to make the mixture more storage stable and reduce volume for transportation by producing a dried stabilized enzyme composition as disclosed by Cory. See the Office Action, page 4, lines 12-20. Applicants respectfully disagree.

Both claims 2 and 7 cover a dried form of a composition containing a thermolabile protein (e.g., a thermolabile enzyme) admixed with a liquor waste. The composition of claims 2 and 7 are in a dried form so as to facilitate transportation and long-term storage. The temperature used in the drying process varies from protein to protein, depending on protein

thermostability. Three different compositions containing proteins phytase, cellulase, and α -amylase, respectively, admixed with sorghum waste liquor can be obtained by drying at 50°C with little loss of activity. See the Specification, page 2, lines 8-10; page 3, lines 11-12; page 4, lines 2-3; and page 4, lines 25-26.

Chen describes improving the thermostability of phytase using sorghum liquor waste. Chen does not teach or suggest a dried form of a protein admixed with a liquor waste as required by claim 2 or 7.

Cory, on the other hand, describes a stabilized glucose isomerase concentrate and a process for preparing the concentrate. It is entirely silent on any liquor waste, let alone teach using a liquor waste to stabilize proteins. Although Cory describes that a glucose isomerase concentrate can be dried it does NOT teach or even suggest that any composition containing a thermolabile protein and a liquor waste obtained by drying without loss of activity. Indeed, this reference does not disclose any procedure to prepare such a composition. Therefore, it does not teach a dried form of a composition containing a protein and a liquor waste as required by claim 2 or 7.

In view of the above, Applicants submit that claims 2 and 7 are not rendered obvious by Chen and Cory, taken either alone or in combination, and respectfully request withdrawal of the rejection.

CONCLUSION

Applicants respectfully submit that the grounds for rejection asserted by the Examiner have been overcome and that claims 1-10, as pending, define patentable subject matter.

Applicant : Kou-Joan Cheng, et al
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Enclosed is a \$510 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050, referencing Attorney's Docket No. 08919-074001.

Respectfully submitted,

Date: _____

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